Please amend claim 11 as follows:

11. (once amended) A kit for [the assay of]assaying, according to the method of claim 1, N samples, each of said samples containing one or more compound to be tested, [which]said kit [comprises]comprising:

N populations of carrier beads [where]wherein the carrier beads of each population are distinguishable from the carrier beads of every other population, and wherein all the beads are pre-coated with [the same]identical reagent at a substantially [the same]identical surface concentration for performing the assay[,]; and

[together with]a supply of additional reagents for performing the assay, [where]wherein N is at least 2.

Remarks

Applicant respectfully requests reconsideration and allowance of this application in view of the amendments above and the following comments. Applicants respectfully submit that the amendments are fairly based on the specification and respectfully request their entry. A copy of the marked up claims showing the amendments, as well as a clean copy of the claims encompassing the amendments, is attached hereto. Formal changes were made to claims 1-11 above, to place them in conformance with conventional U.S. practice. Claim 11, directed to a kit, now depends from main method claim 1.

Additional amendments to the claims are discussed in further detail, in response to the rejections below.

SPECIFICATION

The Examiner objects to the specification as not conforming to United States patent practice in that it lacks particular headings. The specification has been amended above to conform the specification to United States practice and thus, eliminate the Examiner's concern. Specifically, headings for "Background of the Invention" including "1. Field of the Invention" and "2. Description of Related Art" have been inserted. Additionally, a "Brief Summary of the Invention" heading has been added. Moreover, the section of the original specification from pages 9-10, discussing figures 1, 2 and 3 has been moved to follow the Brief Summary of the Invention section and has been re-titled to conform to typical United States practice as the "Brief Description of the Figures" section. Finally, a heading for "Detailed Description of the Invention" has been inserted into the original specification, at a location following the newly-headed "Brief Description of the Figures" section. Applicant respectfully submits that the specification conforms to United States practice. Reconsideration is respectfully requested.

35 U.S.C. § 112, SECOND PARAGRAPH REJECTION OF CLAIMS 1-11

Claims 1-11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner objects to what is viewed as vague and ambiguous

language and informalities within the claims, such as lack of antecedent basis. Applicant respectfully traverses this rejection for the reasons set forth below.

Regarding the above rejection as applied to claim 1, step b), with respect to the term "labelled" carrier beads, Applicant points out that claim 1, step b) has been amended to delete the term "labelled". Thus, the basis for the above rejection with regard to this term has been eliminated.

Regarding the above rejection as applied to claim 1, step b), with respect to the phrase "dispensing each of the N populations of carrier beads into one of N different reaction vessels" and its perceived ambiguous meaning, Applicant points out that the phrase has been amended above. Claim 1, step b), as amended, recites "dispensing each distinguishable population of said N populations of carrier beads into a separate corresponding one of N different reaction vessels." Support for the addition of the terms "separate" and "corresponding" can be found in the specification at page 10, line 21 and page 11, line 8, respectively. Applicant submits that claim 1, step b), as amended above, clarifies Applicant's intended meaning.

Similarly, the above rejection as applied to claim 1, step c), and the phrase "dispensing each of the N samples into one of N different reaction vessels" has been addressed by amendment. Claim 1, step c), as amended, recites "dispensing each one of said N samples into a separate corresponding one of said N different vessels." Support for the addition of the terms "separate" and "corresponding" can be found in the

specification at page 11, lines 11-16. Applicant submits that claim 1, step c), as amended above, clarifies Applicant's intended meaning.

Regarding the above rejection as applied to claim 1, step d), and claim 10, with respect to the phrase "providing . . . reagents for performing an assay" Applicant respectfully requests that the Examiner permit the use of this phrase. Claim terms are not analyzed in a vacuum, but always in light of the specification to which the claims are attached. In this case, Applicant submits that the meaning of the phrase "providing reagents" is made clear in the specification at page 4, line 28 through page 5, line 6, wherein it is explained that reagent can be provided in various alternate ways including, being bound to the carrier beads or being added in solution. Therefore, it would be clear to one of ordinary skill in the art that reagent inclusion can be effected by any reasonable means, so long as reagent is provided. Thus, Applicant respectfully submits that the phrase is, in fact, definite.

Regarding the above rejection as applied to claim 1, step d), and the term "partitioned in a compound-related manner", Applicant points out that this rejection has been addressed by amendment. Claim 1, step d), as amended, now recites

> "an assay whereby a signal moiety is <u>partitioned</u> between said carrier beads in said N different reaction vessels and <u>the assay medium, indicating at least one of the following: the presence or absence of the compound to be tested, the concentration of the compound to be tested, and the biological activity of the compound to be tested</u>;".

Support for the addition of the above language discussing the signal moiety indications can be found in the specification at page 5, lines 9-26. Applicant submits that claim 1, step d), as amended above, clarifies Applicant's intended meaning.

Regarding the above rejection as applied to claim 1, step d), and the relationship between the "reagents" and the "supernatant fluid", Applicant points out that the term "supernatant fluid" has been deleted above and Applicant has substituted the term - - assay medium - -, which is supported in the specification at page 8, lines 21-22. One of ordinary skill in the art could have readily appreciated the relationship between the reagents of the assay and the assay medium in which the assay takes place. Applicant submits that claim 1, step d), as amended above, clarifies Applicant's intended meaning.

Regarding the above rejection as applied to claim 1, step d), and a lack of antecedent basis for the term "that reaction vessel", Applicant points out that claim 1, step d, has been amended above to the word "that." Claim 1, step d), now recites in relevant part "said N different reaction vessels", which find antecedent basis in step b). Thus, the basis for the above rejection with respect the term "that reaction vessel" has been eliminated.

Regarding the above rejection as applied to claim 1, step e), with respect to the phrase "combining the contents of all the reaction vessels" and its relationship to the previous steps, Applicant points out that claim 1, step d, has been amended above. Claim 1, step e) now recites "combining the contents of said N different reaction vessels." The

step of combining the N different reaction vessels is now clear in view of the amendments to steps b) and c) above, wherein it is now clear that a number (N) of separate, different reaction vessels are used. Thus, the basis for the above rejection with respect to the phrase "combining the contents of all the reaction vessels" has been eliminated.

Regarding the above rejection as applied to claim 1, step f), with respect to the phrase "the signal moiety associated with each of a sequence of individual beads" Applicant points out that the phrase has been amended above. Claim 1, step f), now recites "the signal moiety from each of a sequence of individual beads." Applicant respectfully submits that the meaning of the phrase would be clear to one of ordinary skill in the art, in view of the specification. A reading of the specification, particularly at pages 7-8, reveals that the signal moiety can bind to the beads. Thus, the meaning of the signal from each bead, is apparent.

Regarding the above rejection as applied to "claim 2-11", with respect to a lack of antecedent basis for the recitation "A method as claimed in claim . . . ", Applicant points out that all of the pending claims (1-11) have been amended above to correct informalities and conform the claims to conventional U.S. practice. Thus, the basis for this aspect of the above rejection has been eliminated.

Regarding the above rejection as applied to claim 4, with regard to the term "associated" and the relationship between the "populations of beads" and the "sequence

of individual beads" Applicant submits that the amendments to claim 1 and the above discussion thereof, have addressed the Examiner's concerns. Specifically, the relationship between the "sequence of individual beads" and the "populations of beads" is apparent from a reading of claim 1, as amended, in view of the specification. Claim 1 now makes clear that separate populations of beads are later combined in step e) and that the signal from individual beads can then be analyzed in their sequential flow through a flow cytometer instrument. One of ordinary skill in the art would be familiar with the process of analysis by flow cytometry. Claim 4 has been amended to more clearly set forth the invention and incorporates the clarifying amendments to claim 1, by virtue of its indirect dependence thereon. Therefore, Applicant respectfully submits that claim 4, as amended above is, in fact, definite.

Regarding the above rejection as applied to claim 4, with regard to a lack of antecedent basis in reciting "the biological activity", Applicant points out that claim 4 has been amended to delete the word "the" and now recites simply "biological activity." Therefore, Applicant submits that the additional limitation of a signal moiety indicating biological activity is now properly introduced in claim 4. Thus, the basis for this aspect of the above rejection has been eliminated.

The above rejection is applied to claim 6, regarding the recitation "beads, which are pre-coated with a reagent." More specifically, the Examiner cites a perceived lack of clarity in the relationship between said reagent and the reagents of claim 1. Applicant points out that claim 6 has been amended above and now recites "a reagent, of the

reagents recited in step d)." Therefore, Applicant submits that claim 6, as amended is, in fact, definite. Thus, the basis for this aspect of the above rejection has been eliminated.

Regarding the above rejection as applied to claim 7 regarding the phrase, "a population of beads", Applicant point out that the phrase has been deleted from amended claim 7. Therefore, the basis for the rejection as applied to claim 7 has been eliminated.

Regarding the above rejection as applied to claim 8 with regard to the phrase, "a population of beads", Applicant point out that the phrase has been deleted from amended claim 8. Therefore, the basis for the rejection as applied to claim 8 has been eliminated.

The above rejection is applied to claim 9, regarding the phrase "the signal moiety is a fluorescent dye." More specifically, the Examiner cites a perceived lack of distinction among references to fluorescent dye in claims 4, 7 and 9. Applicant respectfully points out that a review of claim 4, did not reveal the term "fluorescent dye." In claim 7, "fluorescent dye" refers to a possible definition for the detectable label on the carrier bead, as introduced in claim 2 and as discussed at page 6 of the specification. In claim 9, "fluorescent dye" refers to the signal moiety, as introduced in claim 1 and as discussed at pages 4-5. The signal moiety is not the same as the label, although both the signal moiety and/or the label can be a fluorescent dye. Thus, the fluorescent dye of claim 7 refers to a different element than does the fluorescent dye in claim 9 and distinction is apparent upon review. Therefore, Applicant respectfully submits that claim 9 is, in fact, definite.

Regarding the above rejection as applied to claim 11 with regard to a lack of antecedent basis for the terms "same reagent" and "same surface concentration", Applicant points out that claim 11 has been amended above to delete the term "the same" and substitute -- identical --. The term "the same" as originally used, was not intended to refer to an earlier occurrence of a reagent or concentration and thus should not require antecedent basis. Applicant submits that by substituting the term -- identical -- the originally intended meaning is conveyed and confusion is avoided.

Regarding the recitation of "a supply of reagents" and this term's relationship to the pre-coated reagent on the beads, Applicant submits that the "supply of reagents" refers to additional reagents, other than what is coated on the beads, needed to perform the assay. One of ordinary skill in the art would readily appreciate that a full complement of reagents, solutions etc., as needed for performing the assay, would be required. In order to make clear that the phrase refers to reagents other than the pre-coated reagent, Applicant has amended claim 11 above, to recite "a supply of additional reagents." Applicant submits that by inserting the term -- additional -- the original intended meaning is conveyed and confusion is avoided. Thus, Applicant respectfully submits that the basis for the above rejection, as applied to claim 11 has been eliminated. In view of the amendments and comments above, Applicant respectfully requests the reconsideration and withdrawal of the 35 U.S.C. § 112, second paragraph rejection.

35 U.S.C. § 102(e) REJECTION OF CLAIMS 1-7, 9, & 10

Claims 1-7, 9 and 10 are rejected under 35, U.S.C. § 102(e) as anticipated by Yamashita et al., US 6,210,900 (hereinafter "Yamashita").

The Examiner asserts that Yamashita, discloses Applicants' method and directs Applicant' attention to the "Summary", col. 3, lines 38-55, col. 4, lines 16-37, 38-49 and col. 13, lines 1-7 of the reference. Applicants respectfully traverse this rejection for the reasons set forth below.

Applicants note that their main claim 1, recites in subparagraph "c)" the element or limitation of "dispensing . . . samples into separate corresponding . . . vessels" and that such samples contain "a compound to be tested" as defined at the top of claim 1. This limitation is also present in claims 2-7 and 9-10, by virtue of their direct or indirect dependence from claim 1. Applicants respectfully submit that Yamashita fails to disclose this same limitation as instantly claimed.

Yamashita discloses the use of pre-encoded beads generated by a combinatorial labeling process as supports for combinatorial synthesis of compounds on the surface of the beads. The identity of the compounds on the beads can subsequently be determined by examination of bead identity.

Yamashita does not teach the use of a method with pre-existing compounds which are not coupled to beads. Consequently, Yamashita does not disclose the addition of samples containing a compound to be tested as instantly claimed. The method of Yamashita is not compatible with use of diverse libraries of compounds and/or compounds which are not compatible with attachment to beads. Additionally, the method is not suitable of use in analyses which are not compatible with an analyte attached to beads. Therefore, Applicants submit that claims 1-7, 9 and 10 cannot by anticipated by Yamashita, because an element of Applicants' claimed method is not disclosed by Yamashita. Thus, Applicant respectfully requests that the above rejection be withdrawn.

35 U.S.C. § 102(e) REJECTION OF CLAIMS 1-2, 4, 6-7 & 9-10

Claims 1-2, 4, 6-7 and 9-10 are rejected under 35, U.S.C. § 102(e) as anticipated by Chandler et al., US 5,981,180 (hereinafter "Chandler").

The Examiner asserts that Chandler, discloses Applicants' method by pointing out that the Chandler method employs distinguishable populations of beads, flow cytometry and can be directed to multiply analytes. The Examiner directs Applicant' attention to col. 3, lines 65 to col. 4, and col. 7, lines 25-61, and lines 63 to col. [6] 8, line 9 of the reference. Applicants respectfully traverse this rejection for the reasons set forth below.

Applicants note that their main claim 1, recites the element or limitation of "assaying N samples" and that the term "N samples" also appears in step "c)", of the

claim. "N" is defined in the last line of instant claim 1 as "greater than or equal to 2." This limitation is also present in claims 2, 4, 6, 7, 9 & 10, by virtue of their direct or indirect dependence from claim 1. Applicants respectfully submit that Chandler fails to disclose this same limitation as instantly claimed.

Chandler discloses a multiplexed assay of N analytes in a single sample using N populations of beads each coated with a different reactant, or a different concentration of the same reactant. Where different bead populations carry different concentrations of the same reactant, these beads are used in combination with further bead sets coated with different reactants in analysis of a single sample (see column 5, lines 38-45).

Clearly, Chandler discloses assaying multiple analytes in a single sample, as is set forth in the "Summary of the Invention" for the reference. Chandler does not disclose the use of encoded beads to identify different samples for processing in the same assay. Therefore, Applicants submit that claims 1-2, 4, 6-7 and 9-10 cannot by anticipated by Chandler because, an element of Applicant's claimed method, is not disclosed by Chandler. Thus, Applicant respectfully requests that the above rejection be withdrawn.

35 U.S.C. § 102(e) REJECTION OF CLAIMS 1-10

Claims 1-10 are rejected under 35, U.S.C. § 102(e) as anticipated by Dower et al., US 6,165,717 (hereinafter "Dower").

The Examiner asserts that Dower, discloses Applicants' method by pointing out that the Dower method employs distinguishable populations of beads, flow cytometry and that the beads can be coated with ligands having an affinity for different multiple compounds. The Examiner directs Applicant' attention to col. 2, lines 64 to col. 3, line 21, col. 4, lines 26-38 and col. 8, lines 35-50, and columns 9-10 of the reference. Applicants respectfully traverse this rejection for the reasons set forth below.

As discussed above, Applicants point out that their main claim 1, recites elements or limitations such as "dispensing . . .N samples into separate corresponding . . . vessels" and such samples contain "a compound to be tested" as defined at the top of claim 1. Such limitations are also present in claims 2-10, by virtue of their direct or indirect dependence from claim 1. Applicants respectfully submit that Dower fails to disclose these limitations as instantly claimed.

Applicant's review of the Dower reference reveals that it discloses the use of beads in split and pool combinatorial synthesis where each addition to molecules being synthesized is accompanied by attachment of a tag identifying the addition. The resulting combinatorial library can be screened and the structure of active compounds elucidated from the tags.

Dower does not disclose the use of the method with pre-existing compounds that are not coupled to beads. The method of Dower is not compatible with use of diverse libraries of compounds and /or compounds which are not compatible with attachment to

beads. Additionally, the Dower method is not suitable for use in analyses that are not compatible with an analyte attached to beads. Dower does not disclose the use of encoded beads to identify a number of different samples for processing in the same assay. Therefore, Applicants submit that claims 2-10 cannot by anticipated by Dower because, an element of Applicant's claimed method, are is disclosed by Dower. Thus, Applicant respectfully requests that the above rejection be withdrawn.

35 U.S.C. § 102(e) REJECTION OF CLAIMS 1-2, 4, 6-7 & 9-10

Claims 1-2, 4, 6-7 and 9-10 are rejected under 35, U.S.C. § 102(e) as anticipated by Haugland et al., US 5,723,218 (hereinafter "Haugland").

The Examiner asserts that Haugland, discloses Applicants' method by pointing out that Haugland discloses labeled carrier beads, which can be used with at least one analyte. The Examiner directs Applicant' attention to col. 13, lines 33-67, and col. 11, lines 21-49 of the reference. Applicants respectfully traverse this rejection for the reasons set forth below.

As discussed above, Applicants point out that their main claim 1, recites elements or limitations such as "dispensing . . .N samples into separate corresponding . . . vessels" and such samples contain "a compound to be tested" as defined at the top of claim 1. Such limitations are also present in claims 1-2, 4, 6-7 and 10, by virtue of their direct or

indirect dependence from claim 1. Applicants respectfully submit that Haugland fails to disclose these limitations as instantly claimed.

Applicant's review of the Haugland reference revealed that it discloses preparation of particles using mixtures of dyes to provide a homogeneous uniform population of beads with spectral properties and other properties which match a defined criteria (see col. 11, lines 21-49). This process is described as target matching. Haugland does not disclose preparation of more than one population of particles, designed to be distinguishable from each other through spectral analysis. Haugland does not disclose that other surface properties can be modified to permit distinguishing different bead populations where such properties are deliberately and specifically modified to create distinguishable bead populations (col. 12, lines 28-34). Haugland does not disclose the use of encoded beads to identify a number of different samples for processing in the same assay. Therefore, Applicants submit that claims 1-2, 4, 6-7 and 9-10 cannot by anticipated by Haugland because, an elements of Applicant's claimed method, are not disclosed by Haugland. Thus, Applicant respectfully requests that the above rejection be withdrawn.

35 U.S.C. § 103(a) REJECTION OF CLAIMS 8 & 11

Claims 8 and 11 are rejected under 35, U.S.C. § 103(a) as being unpatentable over Yamashita in view of Mandecki, US 5,641,634 (hereinafter "Mandecki"). Before

addressing the above rejection as applied to specific claims, Applicant first wishes to summarize the invention.

The instant invention teaches the use of encoded particles to permit parallel processing of many samples in a single analysis by flow cytometry. Encoded particles are added to multiple assay vessels each containing identical reagents, where a different distinguishable bead population is added to each assay vessel. Subsequent addition of a different chemical entity (the analyte) to each assay vessel causes the association of a detectable signal with the bead population in each vessel. Consequently following pooling of samples and parallel analysis, the assay signal associated with each bead population can be determined and assay signals assigned to assay vessels and analytes. This method is an advance over prior art methods in that it permits parallel processing of multiple samples through detection instrumentation that previously could be used only in a serial fashion. The distinctions between the invention and cited prior art are further illustrated in the appended figure, labeled "ATTACHMENT #1".

In view of the above remarks Applicants now turn to discussing the above rejection as applied to claims 8 and 11. In applying the above rejection to claims 8 and 11, the Examiner notes that Yamashita fails to disclose bead population that are electronically labeled and also, fails to disclose a kit, as instantly claimed. The Examiner then cites Mandecki as disclosing a multiplex assay using electronically encoded carrier beads and also, disclosing a kit for detecting compounds in samples using carrier beads, assay vessels and coated labeled reagent. Continuing, the Examiner asserts that it would

have been obvious to one of ordinary skill in the art to electronically encode populations of beads as disclosed by Mandecki, in the method of Yamashita because, Mandecki discloses its applicability in muliplex assays. Further, the Examiner states that one of ordinary skill in the art would have been motivated to combine the teachings of Yamashita and Mandecki because, Mandecki disclosed the advantage thereof, in further detecting and differentiating increased numbers of analytes simultaneously in assays. Concluding, the Examiner states that it would have been obvious to one of ordinary skill in the art to incorporate the reagents, labels and vessels taught by Yamashita into a kit such as in the disclosure of Mandecki because, of recognized advantages of convenience and economy. Applicants respectfully traverse this rejection for the reasons set forth below.

As discussed above, in connection with the rejections under 35 U.S.C. § 102, the Yamashita reference does not teach Applicant's inventive method as now claimed. Yamashita does not teach the use of a method with pre-existing compounds that are not coupled to beads. Additionally, Yamashita does not teach the addition of multiple samples containing a compound to be tested as instantly claimed. These limitations are also present in claims 8 and 11, by virtue of their dependence from claim 1.

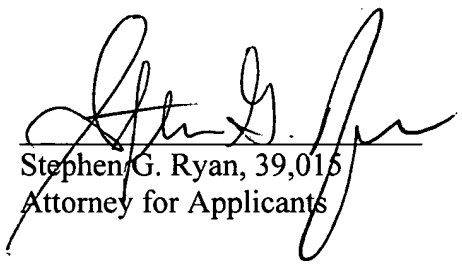
The above deficiencies of the Yamashita reference are not remedied by Mandecki alone or in combination with Yamashita. Mandecki does not provide any teachings regarding the addition of multiple samples containing a compound to be tested. Consequently, the Examiner has not established a prima facie case of obviousness, with

respect to the method as now claimed. In view of the above deficiencies of the cited references alone or in combination, the presently claimed invention is patentably nonobvious over the prior art.

In view of the above deficiencies of the cited references alone or in combination, the presently claimed invention is patentably nonobvious over the prior art. Thus, it is respectfully requested that the above rejection be withdrawn.

Early and favorable action is earnestly solicited.

Respectfully submitted,



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Specification (copy showing amendments)

Page 1, line 8, by inserting the following headings:

-- **BACKGROUND OF THE INVENTION**

1. Field of the Invention --

Page 1, line 25, by inserting the following heading:

-- 2. Description of Related Art --

Page 4, line 1, by inserting the following heading:

-- BRIEF SUMMARY OF THE INVENTION --

Page 7, line 23, by inserting the following:

-- BRIEF DESCRIPTION OF THE FIGURES

The figures show:

Figure 1: Flowchart illustrating the principle of the mix/multiplex HTS process.

Figure 2: Schematic representation of the mix/multiplex HTS process using fluorescence bead identification.

Figure 3: Schematic representation of the mix/multiplex HTS process using electronic bead identification.

DETAILED DESCRIPTION OF THE INVENTION --

Page 9, line 28 through page 10, line 3, by deleting the following:

[**Figure 1**: Flowchart illustrating the principle of the mix/multiplex HTS process.

Figure 2: Schematic representation of the mix/multiplex HTS process using fluorescence bead identification.

Figure 3: Schematic representation of the mix/multiplex HTS process using electronic bead identification.]

Page 16, line 1, as follows:

[CLAIMS]

What is claimed is:

Claims (marked-up version showing amendments)

1. (once amended) A method for [the assay of]assaying N samples each containing a compound to be tested, [which]said method [comprises]comprising[the steps of]:

a) providing N populations of carrier beads [where]wherein the carrier beads of each population are distinguishable from the carrier beads of every other population;

b) dispensing each distinguishable population of [the]said N populations of [labelled]carrier beads into a separate corresponding one of N different reaction vessels;

c) dispensing each one of [the]said N samples into a separate corresponding one of [the]said N different reaction vessels;

d) providing in each of said N different reaction vessels reagents for performing an assay whereby a signal moiety is [caused to be]partitioned [in a compound-related manner]between [the]said carrier beads in [that]said N different reaction [vessel]vessels and [a supernatant fluid]the assay medium, indicating at least one of the following: the presence or absence of the compound to be tested, the concentration of the compound to be tested, and the biological activity of the compound to be tested;

e) combining the contents of [all of the]said N different reaction vessels into a mixture, and

f) subjecting the mixture to analysis by flow cytometry, to assay the signal moiety [associated with]from each of a sequence of individual beads; wherein N is greater than or equal to 2.

2. (once amended) [A]The method [as claimed in]of claim 1, wherein [in step a) there are provided N populations]each distinguishable population of carrier beads [where the carrier beads of one population are]is distinguishable by virtue of a detectable label from the carrier beads of another population.

3. (twice amended) [A]The method [as claimed in]of claim 1, wherein N is 80 – 100,000.

4. (twice amended) [A]The method [as claimed in]of claim 2, wherein [in step f) the]said mixture is subjected to analysis by flow cytometry, to assay [the]said signal moiety and [the]said label [associated with]from each of a sequence of individual beads, whereby [the]said signal moiety indicates [the]biological activity of [the]said compound to be tested and [the]said label indicates the sample containing the compound.

5. (twice amended) [A]The method [as claimed in]of claim 1, wherein N is from 80 to 4000.

6. (twice amended) [A]The method [as claimed in]of claim 1, wherein [the]a reagent, of the reagents recited in step d), is provided on said carrier beads, which are pre-coated with [a]said reagent for performing the assay.

7. (twice amended) [A]The method [as claimed in]of claim [1]2, wherein [a population of beads is detectably labelled by means of]said detectable label comprises at least one fluorescent dye.

8. (twice amended) [A]The method [as claimed in]of claim [1]2, wherein [a population of beads is electronically labelled]said detectable label comprises an electronic label.

9. (twice amended) [A]The method [as claimed in]of claim 1, wherein [the]said signal moiety is a fluorescent dye.

10. (twice amended) [A]The method [as claimed in]of claim 1, wherein in step d) the same reagents for performing the same assay are provided in each of the N different reaction vessels.

11. (once amended) A kit for [the assay of]assaying, according to the method of claim 1, N samples, each of said samples containing one or more compound to be tested, [which]said kit [comprises]comprising:

N populations of carrier beads [where]wherein the carrier beads of each population are distinguishable from the carrier beads of every other population, and wherein all the beads are pre-coated with [the same]identical reagent at a substantially [the same]identical surface concentration for performing the assay[,]; and

[together with]a supply of additional reagents for performing the assay, [where]wherein N is at least 2.

Claims (clean version encompassing the amendments)

1. (once amended) A method for assaying N samples each containing a compound to be tested, said method comprising:

a) providing N populations of carrier beads wherein the carrier beads of each population are distinguishable from the carrier beads of every other population;

b) dispensing each distinguishable population of said N populations of carrier beads into a separate corresponding one of N different reaction vessels;

c) dispensing each one of said N samples into a separate corresponding one of said N different reaction vessels;

d) providing in each of said N different reaction vessels reagents for performing an assay whereby a signal moiety is partitioned between said carrier beads in said N different reaction vessels and the assay medium, indicating at least one of the following: the presence or absence of the compound to be tested, the concentration of the compound to be tested, and the biological activity of the compound to be tested;

e) combining the contents of said N different reaction vessels into a mixture, and

f) subjecting the mixture to analysis by flow cytometry, to assay the signal moiety from each of a sequence of individual beads;

wherein N is greater than or equal to 2.

2. (once amended) The method of claim 1, wherein each distinguishable population of carrier beads is distinguishable by virtue of a detectable label from the carrier beads of another population.

3. (twice amended) The method of claim 1, wherein N is 80 – 100,000.

4. (twice amended) The method of claim 2, wherein said mixture is subjected to analysis by flow cytometry, to assay said signal moiety and said label from each of a sequence of individual beads, whereby said signal moiety indicates biological activity of said compound to be tested and said label indicates the sample containing the compound.

5. ~~(twice amended) The method of~~ claim 1, wherein N is ~~from 80 to 4000.~~

6. (twice amended) The method of claim 1, wherein a reagent, of the reagents recited in step d), is provided on said carrier beads, which are pre-coated with said reagent for performing the assay.

7. (twice amended) The method of claim 2, wherein said detectable label comprises at least one fluorescent dye.

8. (twice amended) The method of claim 2, wherein said detectable label comprises an electronic label.

9. (twice amended) The method of claim 1, wherein said signal moiety is a fluorescent dye.

10. (twice amended) The method of claim 1, wherein in step d) the same reagents for performing the same assay are provided in each of the N different reaction vessels.

11. (once amended) A kit for assaying, according to the method of claim 1, N samples, each of said samples containing one or more compound to be tested, said kit comprising:

N populations of carrier beads wherein the carrier beads of each population are distinguishable from the carrier beads of every other population, and wherein all the beads are pre-coated with identical reagent at a substantially identical surface concentration for performing the assay; and

a supply of additional reagents for performing the assay,

wherein N is at least 2.

Attachment #1